

## **Abstract**

**Title:** The influence of esports on man professional computer players' musculoskeletal system in Czech Republic

**Objectives:** The main aim of the study is to determine the influence of esports on the musculoskeletal system of Czech professional computer gamers. The secondary objectives of the thesis include the introduction of this new popular sport sector, description of the most common musculoskeletal disorders and other health risks of esports players, identification of the exercise regime and lifestyle of Czech professional esports players compared to foreign players and description of ergonomics, preventive and compensatory mechanisms in esports.

**Methods:** The special section contains a study that was conducted using a non-standardized questionnaire survey. The electronic questionnaire was distributed to Czech esports teams via email correspondence and the most used social platforms: Instagram and Messenger. A total of 88 responses were collected. The respondents were professional Czech computer gamers up to 35 years of age. The resulting data analysis was performed using analytic tools and descriptive statistics in MS Excel, one- and two- sample T-test and Pearson correlation coefficient.

**Results:** There was no significant correlation between time spent playing esports and the incidence of player musculoskeletal pain/discomfort ( $r = -0.004$ ). It was also not possible to confirm an inverse correlation between the average weekly time spent in physical activity and the incidence of musculoskeletal pain/discomfort ( $P = 0.219$ ). According to the results, more than 50% of the players suffer from musculoskeletal problems, with the lumbar spine being the most troublesome for 29% of players, the wrist - 21%, the cervical spine - 15% and the thoracic spine - 12%. Czech esports athletes adhere to the recommended number of hours of sleep and significantly exceed the WHO recommendations for weekly time spent in moderate to vigorous physical activity.

**Keywords:** esports, prevention, computer, ergonomics, aids, compensation, survey, physiotherapy